

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|-------|------|--|-----------------|------------------|---------|------------------|
| L1 | 8234 | ((438/3) or (438/239-256) or (438/386-399)).CCLS. | US-PGPUB; USPAT | OR | OFF | 2005/05/13 16:06 |
| L2 | 1 | ("6580111").PN. | US-PGPUB; USPAT | OR | OFF | 2005/05/13 16:06 |
| L3 | 1 | 2 and (silicon polysilicon poly) | US-PGPUB; USPAT | OR | OFF | 2005/05/13 16:15 |
| L4 | 807 | 1 and (tin or (titanium adj nitride)) with (polysilicon poly) | US-PGPUB; USPAT | OR | OFF | 2005/05/13 16:15 |
| L5 | 174 | 1 and ((tin or (titanium adj nitride)) with (polysilicon poly)) with ((bottom lower) near2 (electrode plate)) | US-PGPUB; USPAT | OR | OFF | 2005/05/13 16:16 |
| L6 | 149 | 5 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2005/05/13 16:18 |
| L7 | 29 | 6 and (((hafnium aluminum) adj oxide) "hfo.sub.2" "al.sub.2 o.sub.3") | US-PGPUB; USPAT | OR | OFF | 2005/05/13 16:19 |
| S2 | 2248 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") with ((hafnium adj oxide) "HfO. sub.2" "HfO") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 17:44 |
| S3 | 0 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") with ((hafnium adj oxide) "HfO. sub.2" "HfO") same (hf-rich al-rich) | US-PGPUB; USPAT | OR | OFF | 2004/11/12 13:15 |
| S4 | 9 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") with ((hafnium adj oxide) "HfO. sub.2" "HfO") same (rich) | US-PGPUB; USPAT | OR | OFF | 2004/11/12 13:15 |
| S5 | 11 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") with ((hafnium adj oxide) "HfO. sub.2" "HfO") same (rich) | US-PGPUB; USPAT | OR | ON | 2004/11/12 13:25 |
| S6 | 2128 | ((438/3) or (438/240)).CCLS. | US-PGPUB; USPAT | OR | OFF | 2004/11/12 13:29 |
| S7 | 7592 | ((438/3) or (438/239-256) or (438/386-399)).CCLS. | US-PGPUB; USPAT | OR | OFF | 2005/05/13 16:05 |
| S8 | 61 | S2 and S6 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 13:31 |
| S9 | 112 | S2 and S7 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 13:31 |
| S10 | 2301 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") with ((hafnium adj oxide) "HfO. sub.2" "HfO") | US-PGPUB; USPAT | OR | ON | 2004/11/12 13:30 |

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| S11 | 61 | S10 and S6 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 13:32 |
| S12 | 114 | S10 and S7 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 13:32 |
| S13 | 114 | S11 or S12 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 13:32 |
| S22 | 96 | S13 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2005/05/13 16:16 |
| S23 | 18 | S13 not S22 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 13:48 |
| S24 | 96 | S13 not S23 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 14:00 |
| S25 | 1 | ("6645882").PN. | US-PGPUB; USPAT | OR | OFF | 2004/11/12 14:00 |
| S26 | 0 | S25 and (capacitor dram) | US-PGPUB; USPAT | OR | ON | 2004/11/12 14:13 |
| S27 | 1 | ("6760492").PN. | US-PGPUB; USPAT | OR | OFF | 2004/11/12 14:14 |
| S28 | 1 | S27 and (waveguide or (wave adj guide)) | US-PGPUB; USPAT | OR | OFF | 2004/11/12 14:38 |
| S29 | 35 | S2 and samsung | US-PGPUB; USPAT | OR | OFF | 2004/11/12 14:46 |
| S31 | 36 | LEE-JONG-HO | US-PGPUB; USPAT | OR | OFF | 2004/11/12 14:46 |
| S32 | 36 | (LEE-JONG-HO).in. | US-PGPUB; USPAT | OR | OFF | 2004/11/12 14:48 |
| S33 | 43 | (HO-CHO JIN-SEUNG).in. | US-PGPUB; USPAT | OR | OFF | 2004/11/12 14:49 |
| S34 | 43 | (HO-CHO JIN-SEUNG).in. | US-PGPUB; USPAT | OR | ON | 2004/11/12 14:49 |
| S35 | 11 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") with (ALD with precursor) | US-PGPUB; USPAT | OR | OFF | 2004/11/12 17:07 |
| S36 | 15 | (ALD with precursor) with ((hafnium adj oxide) "HfO.sub.2" "HfO") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 17:07 |
| S37 | 14 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") with (ALD with precursor) | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:16 |
| S38 | 19 | (ALD with precursor) with ((hafnium adj oxide) "HfO.sub.2" "HfO") | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:15 |
| S39 | 7 | tetramethylaluminum | US-PGPUB; USPAT | OR | ON | 2004/11/12 17:21 |

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| S40 | 57 | (tetramethylaluminum tma (tetra adj methyl adj aluminum) (tetramethyl adj aluminum)) with ALD | US-PGPUB; USPAT | OR | ON | 2004/11/12 17:42 |
| S41 | 3 | S37 and S38 | US-PGPUB; USPAT | OR | ON | 2004/11/12 18:56 |
| S42 | 73 | (trimethylaluminum tma (tri adj methyl adj aluminum) (trimethyl adj aluminum)) with ALD | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:18 |
| S43 | 52 | S42 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:16 |
| S44 | 3798 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") and ((hafnium adj oxide) "HfO. sub.2" "HfO") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 17:44 |
| S45 | 22 | S43 and S44 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 17:44 |
| S46 | 4 | S22 and ((precursor) with ((hafnium adj oxide) "HfO.sub.2" "HfO")) | US-PGPUB; USPAT | OR | ON | 2004/11/12 17:50 |
| S47 | 3 | S41 and purge | US-PGPUB; USPAT | OR | ON | 2004/11/12 18:59 |
| S48 | 3 | S41 and purg\$ | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:09 |
| S49 | 1 | ("20030168750").PN. | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:08 |
| S50 | 14 | S9 and purg\$ | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:09 |
| S51 | 1 | S49 and purg\$ | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:09 |
| S52 | 1 | ("6645882").PN. | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:09 |
| S53 | 0 | S52 and purg\$ | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:15 |
| S54 | 40 | (ALD same precursor) same ((hafnium adj oxide) "HfO.sub.2" "HfO") | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:25 |
| S55 | 73 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") same (ALD same precursor) | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:25 |
| S56 | 10 | S54 and S55 | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:16 |
| S57 | 10 | S56 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:28 |
| S58 | 7 | S57 not S41 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:17 |

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| S59 | 1 | (trimethylaluminum tma (tri adj methyl adj aluminum) (trimethyl adj aluminum)) and S58 | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:19 |
| S60 | 0 | S59 and ((purg\$) with (nitrogen "n.sub.2")) | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:20 |
| S61 | 4 | S58 and ((purg\$) with (nitrogen "n.sub.2")) | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:27 |
| S62 | 4 | S58 and ("hfcl.sub.4") | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:24 |
| S63 | 51 | (ALD same ("Hfcl.sub.4" precursor)) same ((hafnium adj oxide) "HfO.sub.2" "HfO") | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:25 |
| S64 | 7503 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") same (ALD same (tma trimethyl "alch.sub.3") precursor) | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:27 |
| S65 | 112 | ((aluminum adj oxide) "al.sub.2 o. sub.3" alumina "al.sub.x O.sub.y") same (ALD same ((tma trimethyl "alch.sub.3") precursor)) | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:27 |
| S66 | 151 | S63 or S65 | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:27 |
| S67 | 12 | S63 and S65 | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:27 |
| S68 | 7 | S67 and ((purg\$) with (nitrogen "n.sub.2")) | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:27 |
| S69 | 5 | S68 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:53 |
| S70 | 0 | ("10608103").PN. | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:35 |
| S71 | 1 | 10/608103 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:36 |
| S72 | 1 | S71 and (clean\$) | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:36 |
| S73 | 19 | S7 and (clean\$ with "nh.sub.4 oh" with "h.sub.2 o.sub.2" with "h. sub.2") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 20:04 |
| S74 | 86 | sc-1 with clean\$ with ratio | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:53 |
| S75 | 18 | sc-1 with clean\$ with 1:4:20 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:53 |
| S76 | 91 | S74 or S75 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:53 |
| S77 | 81 | S76 and oxide | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:53 |
| S78 | 63 | S77 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 20:05 |

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| S79 | 294443 | S7 or capacitor or dram | US-PGPUB; USPAT | OR | OFF | 2004/11/12 19:54 |
| S80 | 326899 | S7 or capacitor or dram | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:54 |
| S81 | 8 | S80 and S78 | US-PGPUB; USPAT | OR | ON | 2004/11/12 19:54 |
| S82 | 459 | (clean\$ with "nh.sub.4 oh" with "h.sub.2 o.sub.2" with "h.sub.2") | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:43 |
| S83 | 510 | S76 or S82 | US-PGPUB; USPAT | OR | OFF | 2004/11/12 20:05 |
| S84 | 488 | S83 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 20:05 |
| S85 | 191 | (clean\$ with "nh.sub.4 oh" with "h.sub.2 o.sub.2" with "h.sub.2") same oxide | US-PGPUB; USPAT | OR | OFF | 2004/11/12 20:07 |
| S86 | 33 | (clean\$ with "nh.sub.4 oh" with "h.sub.2 o.sub.2" with "h.sub.2") same (oxide with thickness) | US-PGPUB; USPAT | OR | OFF | 2004/11/12 20:09 |
| S87 | 0 | (clean\$ with "nh.sub.4 oh" with "h.sub.2 o.sub.2" with "h.sub.2") with (electrode plate) same (oxide with thickness) | US-PGPUB; USPAT | OR | OFF | 2004/11/12 20:10 |
| S88 | 11 | (clean\$ with "nh.sub.4 oh" with "h.sub.2 o.sub.2" with "h.sub.2") same (electrode plate) same (oxide with thickness) | US-PGPUB; USPAT | OR | OFF | 2004/11/12 20:11 |
| S89 | 133 | (storage adj (electrode plate node)) with clean\$ | US-PGPUB; USPAT | OR | OFF | 2004/11/12 20:12 |
| S90 | 153 | (storage adj (electrode plate node)) with clean\$ | US-PGPUB; USPAT | OR | ON | 2004/11/12 20:17 |
| S91 | 5 | S90 and S83 | US-PGPUB; USPAT | OR | ON | 2004/11/12 20:12 |
| S92 | 39546 | (electrode plate node) with clean\$ | US-PGPUB; USPAT | OR | ON | 2004/11/12 20:17 |
| S93 | 55 | S92 and S83 | US-PGPUB; USPAT | OR | ON | 2004/11/12 20:17 |
| S94 | 14 | S93 and (capacitor dram) | US-PGPUB; USPAT | OR | ON | 2004/11/12 22:18 |
| S95 | 1 | (BOE or buffered adj oxide adj etch) same (RTO) same (node plate electrode) | US-PGPUB; USPAT | OR | ON | 2004/11/12 22:19 |
| S96 | 5 | (BOE or buffered adj oxide adj etch) same (thermal adj oxide) same (node plate electrode) | US-PGPUB; USPAT | OR | ON | 2004/11/12 22:20 |

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| S97 | 6 | (BOE or (buffered adj oxide adj etch)) same (rto (thermal adj oxide)) same (node plate electrode) | US-PGPUB; USPAT | OR | ON | 2004/11/12 22:22 |
| S98 | 79 | (BOE HF or (buffered adj oxide adj etch)) same (rto (thermal adj oxide)) same (node plate electrode) | US-PGPUB; USPAT | OR | ON | 2004/11/12 23:25 |
| S99 | 76 | S98 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 23:26 |
| S100 | 51 | RCA same sc-1 same sc-2 same oxide | US-PGPUB; USPAT | OR | ON | 2004/11/12 23:29 |
| S101 | 45 | S100 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 23:54 |
| S102 | 20 | sc-1 same (BOE HF (buffered adj oxide)) same (electrode capacitor plate node) | US-PGPUB; USPAT | OR | ON | 2004/11/12 23:40 |
| S103 | 12 | sc-1 same (native adj oxide) same (electrode capacitor plate node) | US-PGPUB; USPAT | OR | ON | 2004/11/12 23:45 |
| S104 | 31 | sc-1 same ((formation formed form forms forming) with oxide) same (electrode capacitor plate node) | US-PGPUB; USPAT | OR | ON | 2004/11/12 23:46 |
| S105 | 21 | S104 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/12 23:53 |
| S106 | 397 | (BOE hf) same (RTO (rapid adj thermal)) | US-PGPUB; USPAT | OR | ON | 2004/11/12 23:54 |
| S107 | 22 | (BOE hf) with (RTO RTP (rapid adj thermal)) with oxide | US-PGPUB; USPAT | OR | ON | 2004/11/13 00:03 |
| S108 | 22 | S107 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:04 |
| S109 | 377 | S106 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:03 |
| S110 | 26 | (BOE hf) with (RTO RTP (rapid adj thermal)) with (oxide oxidation oxidizing oxidize oxidized) | US-PGPUB; USPAT | OR | ON | 2004/11/13 00:04 |
| S111 | 26 | S110 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:23 |
| S112 | 4 | S111 not S108 | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:22 |
| S113 | 2 | 10/316874 | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:22 |
| S114 | 143 | park and sc-1 | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:45 |
| S115 | 134 | S114 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:46 |

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| S11 6 | 2 | 10/316874 | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:40 |
| S11 7 | 2 | 10/316874 | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:40 |
| S11 8 | 11 | ("20020160565" "4423087" "4437139" "4471405" "5643817" "6346741" "6436817" "6486022" "6486530" "6509601" "6541332").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/11/13 00:42 |
| S11 9 | 0 | S118 and sc-1 | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/11/13 00:42 |
| S12 0 | 0 | S118 and "nh.sub.4 oh" with "h. sub.2 o.sub.2" | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:43 |
| S12 1 | 134 | S114 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/13 00:46 |
| S12 2 | 2 | 10/316874 | US-PGPUB; USPAT | OR | OFF | 2004/11/13 13:31 |
| S12 3 | 1 | ("6706607").PN. | US-PGPUB; USPAT | OR | OFF | 2004/11/13 13:30 |
| S12 4 | 143 | park and sc-1 | US-PGPUB; USPAT | OR | OFF | 2004/11/13 13:44 |
| S12 5 | 11 | ("20020160565" "4423087" "4437139" "4471405" "5643817" "6346741" "6436817" "6486022" "6486530" "6509601" "6541332").PN. | US-PGPUB; USPAT; USOCR | OR | OFF | 2004/11/13 13:34 |
| S12 6 | 5 | S125 and (sc-1 cleaning clean cleaned cleans) | US-PGPUB; USPAT; USOCR | OR | ON | 2004/11/13 13:35 |
| S12 7 | 134 | S124 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/13 13:45 |
| S12 8 | 1084 | park and ((standard adj (clean cleans cleaning cleaned)) sc-1 RCA) | US-PGPUB; USPAT | OR | OFF | 2004/11/13 13:45 |
| S12 9 | 1043 | S128 not (@ad>"20030630" or @rlad>"20030630") | US-PGPUB; USPAT | OR | OFF | 2004/11/13 13:45 |
| S13 0 | 909 | S129 not S124 | US-PGPUB; USPAT | OR | OFF | 2004/11/13 13:45 |
| S13 1 | 73 | S130 and ("438"/\$.ccls.) | US-PGPUB; USPAT | OR | OFF | 2004/11/13 15:10 |
| S13 2 | 2 | "6645882" | US-PGPUB; USPAT | OR | OFF | 2004/11/13 15:11 |
| S13 3 | 2 | S132 and temperature | US-PGPUB; USPAT | OR | OFF | 2004/11/13 17:48 |

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| S13 4 | 29 | (CHO-HO-JIN or JIN-SEUNG-WOOor KIM-BONG-SOO).in. | US-PGPUB; USPAT | OR | ON | 2004/11/13 17:49 |
| S13 5 | 33 | (CHO-HO-JIN or JIN-SEUNG-WOO or KIM-BONG-SOO).in. | US-PGPUB; USPAT | OR | ON | 2004/11/13 17:49 |